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Standing Balance: Eyes Open

Age: 4.0-9.0

Directions: Subject is asked to stand so that he is not close to walls or furniture that might encourage his use of them to maintain his balance. Subject is asked to stand with arms folded, elbows flexed, hands tucked in and held against his chest.

Touching subject's left leg near foot, examiner says: "Lift this foot. Don't hop or move around."

Stopwatch is started as soon as one foot is lifted and time noted when that foot is placed on the floor again, even momentarily, or hand is extended to gain balance, or child hops or moves foot on which he is standing in order not to lose balance. If subject immediately loses his balance, apparently because of not getting balance first before lifting his foot, the test is repeated with the reminder to the child that he gets his balance first, before lifting his foot. It is important that a child be given a second chance if the first measurement was not an accurate indication of his standing balance. When subject has stood for 180 seconds on a foot, the test is stopped for that foot.

Balancing ability on the left leg is tested in the same manner, with examiner saying: "Now lift the other foot".

Scoring: The total number of seconds recorded for both the left and right constitute the score for the test. The maximal score on the test is 360. The standard score for all ages are below.

Standing Balance: Eyes Closed

The procedure and scoring for this test is identical to that for Standing Balance Eyes Open, with the exception that subject is required to keep his eyes closed while balancing on one foot. If subject is unable to keep his eyes closed, a shield should be placed before his eyes to prevent any visual stimuli from assisting him in his balance. It is often advisable to let subject know that balancing with the eyes closed is much more difficult for all people. The standard scores are found below.

Scoring: As in SBO, this test is terminated when subject has stood 180 seconds on either foot, making the maximal possible score 360. It is unlikely that anyone will reach the maximal score.

Test	AGE LEVEL				
	4.0-4.5	4.5-4.11	5.0-5.5	5.6-5.11	6.0-6.5
SBO	13.7	18.7	24.0	34.4	44.4
SBC	3.3	4.3	5.1	6.5	7.4

Test	AGE LEVEL				
	6.6-6.11	7.0-7.5	7.6-7.11	8.0-8.5	8.6-8.11
SBO	60.8	75.2	73.1	86.5	113.2
SBC	9.3	9.7	11.3	11.2	12.8



## VISUAL-MOTOR INTEGRATION TEST

### DIRECTIONS FOR ADMINISTERING THE TEST

#### Individual Administration

1. The child is to copy the forms with a pencil, without erasing or working over. The forms are to be copied in order. Only one attempt on each form is allowed.
2. Place the test booklet face down before the child. Care should be taken to avoid exposing the more difficult forms prematurely.
3. Keep both the test booklet and the child's body centered and squared with the table throughout testing.
4. Open the booklet to the first page of forms and immediately point to Form I, asking, "Can you make one like that?" Permit the child to respond to the question and then point to the blank space below the form, saying, "You make yours right here." Encourage the child if necessary. (Neither the examiner nor the child should trace the stimulus with his finger or pencil, as such motions provide cues. It is also important to avoid calling a form by its name or by a descriptive term. For example, do not say, "Make the circle" or "Make the ball".)
5. Continue prompting for as many forms as necessary. However, as soon as it seems that the child understands the task, say to him, "Go right ahead and do the rest of them. You may turn to the next page when you have finished this one." The child is not to be timed (overtly) or otherwise pressured. Recording of test observations should be done inconspicuously.
6. If a child does not understand the task or fails the first three forms, turn to the back of the first sheet and, using the faint outlines of the first form, make repetitive up and down pencil marks over the outline, inviting the child to imitate your marks with his own. If the child succeeds on one or more imitated forms, let him try again to copy the forms directly.
7. Testing may be discontinued after the child has failed on three consecutive forms. You may choose to continue, however, as it is often quite informative to see how a child approaches the more difficult forms. (In the author's experience, few children seem to be upset by failures, and many of them ask to do more of the forms.)

**FORM 1 Vertical Line**  
Scoring Criteria

Age Norms  
(Imitated)  
Male: 1-9  
Female: 1-9

Predominantly vertical lines

Age Norms  
(Copied)  
Male: 2-10  
Female: 2-10

**FORM 2 Horizontal Line**  
Scoring Criteria

Age Norms  
(Imitated)  
Male: 2-6  
Female: 2-6

Predominantly horizontal lines

Age Norms  
(Copied)  
Male: 3-0  
Female: 3-0

**FORM 3 Circle**  
Scoring Criteria

Age Norms  
(Imitated)  
Male: 2-9  
Female: 2-9

Predominantly circular lines

Age Norms  
(Copied)  
Male: 3-0  
Female: 3-0

**FORM 4 Vertical-Horizontal Cross**  
Scoring Criteria

Age Norms  
Male: 4-1  
Female: 3-8

1. Two fully intersecting lines

not: 

2. Two continuous lines

not: 

3. At least 1/2 of each line within 20° of its correct orientation

not: 

**FORM 5 Right Oblique Line**  
Scoring Criteria

Age Norms  
Male: 4-4  
Female: 4-0

1. A fairly straight line

not: 


2. At least 1/2 of the line between 110° and 160° (read protractor in clockwise direction)

not: 

3. No abrupt change of direction

not: 



 **FORM 6 Square**  
Scoring Criteria

Age Norms  
Male: 4-6  
Female: 4-3

Four clearly defined sides  
(corners need not be angular)

not:  

 **FORM 7 Left Oblique Line**  
Scoring Criteria

Age Norms  
Male: 4-7  
Female: 4-6

1. A fairly straight line

not:  

2. At least  $\frac{1}{2}$  of the line between  $20^\circ$  and  $70^\circ$   
(read protractor in clockwise direction)

not:  

3. No abrupt change of direction

not:  

 **FORM 8 Oblique Cross**  
Scoring Criteria

Age Norms  
Male: 4-11  
Female: 4-10

1. Two continuous, intersecting lines


not:  

2. Lines angled between  $20^\circ$ - $70^\circ$   
and  $110^\circ$ - $160^\circ$

not:  

3. Fairly equal length of "leg"

not:  

 **FORM 9 Triangle**  
Scoring Criteria

Age Norms  
Male: 5-3  
Female: 5-3

1. Three clearly defined sides

not:  

2. One corner higher than others

not:  

 **FORM 10 Open Square and Circle**  
Scoring Criteria

Age Norms  
Male: 5-5  
Female: 5-6

1. No more than slight separation of forms

not:  

2. No major distortions of circle or open square

not:  

3. Circle and two-cornered square of fairly equal size

not:  

4. Bisector of circle passing through corner of square must project into the square

not:  

 **FORM 11 Three-Line Cross**  
Scoring Criteria

Age Norms  
Male: 5-9  
Female: 5-8

1. Three continuous, intersecting lines

not:



2. Intersection fairly accurate

not:



3. One horizontal and two diagonals

not:



 **FORM 12 Directional Arrows**  
Scoring Criteria

Age Norms  
Male: 6-5  
Female: 6-5

1. Absence of reversed or "floating" tips

not:



2. Sharp points on tips

not:



3. No indication of directional confusion

not:



4. Fairly equal length of "legs"

not:



 **FORM 13 Two-Dimensional Rings**  
Scoring Criteria

Age Norms  
Male: 6-8  
Female: 6-3

1. Three overlapping circles showing seven openings. The triangular opening in the center *must* show



not:



2. One circle clearly below the others. (In doubtful cases, circle arrangement can be checked by connecting the midpoints of the three circles to form a triangle. The lowest side of the triangle must be tipped 20° or more)



not:



 **FORM 14 Six-Circle Triangle**  
Scoring Criteria

Age Norms  
Male: 7-2  
Female: 7-5

1. Six circles

not:



2. At least two straight sides. (Dotted line must run through or at least touch the edge of each circle, as shown)



not:



3. Fairly equal spacing

not:




4. Baseline fairly horizontal







not:










 **FORM 15 Circle and Tilted Square**  
Scoring Criteria


Age Norms  
Male: 7-7  
Female: 7-11

- |   |      |   |
|---|------|---|
| 1. Four-cornered square and a circle                                  | not: |  |
| 2. Opposite corners within 10° of vertical and horizontal orientation | not: |  |
| 3. Square touches circle with closed corner                           | not: |  |
| 4. Little or no gap or overlap of forms                               | not: |  |
| 5. Contact of corner within middle 1/3 of circle                      | not: |  |
| 6. Relatively equal size of circle and square                         | not: |  |





 **FORM 16 Vertical Diamond**  
Scoring Criteria

Age Norms  
Male: 8-1  
Female: 8-1

- |   |      |   |
|---|------|---|
| 1. Four good corners                        | not: |    |
| 2. Opposing corners (especially horizontal) | not: |    |
| 3. Only slight "dog-ears" allowed           | not: |   |
| 4. No "kite" shapes                         | not: |  |
| 5. Both acute angles must be 60° or less    | not: |  |




 **FORM 17 Tilted Triangles**  
Scoring Criteria

Age Norms  
Male: 8-11  
Female: 8-8

- |  |      |   |
|--|------|---|
| 1. Two triangles   | not: |  |
| 2. Two corners of inner triangle cleanly touch near medians of outer triangle and 3rd corner must be close | not: |  |
| 3. Left outer angle approximately 90°  | not: |  |
| 4. Right outer side slopes 100° or more  | not: |  |

 **FORM 18 Eight-Dot Circle**  
Scoring Criteria

Age Norms  
Male: 9-6  
Female: 9-5

- |  |      |   |
|--|------|---|
| 1. Eight dots  | not: |  |
| 2. Circularity (one dot may fall somewhat outside the pattern) | not: |  |
| 3. Fairly regular spacing                                      | not: |  |



# FORM 19 Wertheimer's Hexagons

## Scoring Criteria

Age Norms  
Male: 10-2  
Female: 9-4

1. All sides indicated (one of the most obtuse angles may be rounded)



2. No evidence of directional confusion



3. Overlap clearly shown, but not extreme



# FORM 20 Horizontal Diamond

## Scoring Criteria

Age Norms  
Male: 10-11  
Female: 10-1

1. Four good corners



2. Both acute angles 60° or less



3. Horizontal axis between 170° and 190°



4. No obvious "kites"\*



5. Opposing corners\*



\*Score 4 and 5 less strictly than the vertical diamond



# FORM 21 Three-Dimensional Rings

## Scoring Criteria

Age Norms  
Male: 11-2  
Female: 11-1

1. Three complete, double-line circles



2. Overlapping correct



3. At least one clean 3-D overlap



# FORM 22 Necker Cube

## Scoring Criteria

Age Norms  
Male: 12-8  
Female: 12-9

1. Correct number of parts



2. Correct orientation



3. No evidence of confusion



# FORM 23 Tapered Box

## Scoring Criteria

Age Norms  
Male: 13-2  
Female: 12-4

1. Outer form a parallelogram (may be square)



2. Inner form a horizontal rectangle



3. Inner form clearly shifted right and down



4. No confusion or distortion







**FORM 24 Three-Dimensional Star**  
**Scoring Criteria**

*Age Norms*  
 Male: 13-8  
 Female: 13-7

1. Correct intersection of double-line forms

not:

2. One over- and one underlapping of the *same* triangle (without guidelines)



not:



3. No 30° rotations

not:



4. No extreme distortion

SCORING

VMI AGE EQUIVALENTS

Raw score is based on the total number of forms passed up to three consecutive failures. Imitated forms are not to be counted in deriving the total score.

<u>Raw Score</u>	<u>Male</u>	<u>Female</u>	<u>Raw Score</u>	<u>Male</u>	<u>Female</u>
1	2-10	2-10	13	6-10	6-7
2	3-0	3-0	14	7-4	7-2
3	3-2	3-2	15	7-10	7-11
4	4-1	3-10	16	8-7	8-8
5	4-4	4-1	17	9-4	9-6
6	4-6	4-4	18	10-2	10-3
7	4-9	4-8	19	10-11	11-1
8	5-0	4-11	20	11-9	12-0
9	5-3	5-3	21	12-8	13-0
10	5-7	5-6	22	13-9	13-11
11	6-0	5-10	23	14-10	14-10
12	6-5	6-2	24	15-11	15-9

Name \_\_\_\_\_ Age \_\_\_\_\_ Date \_\_\_\_\_  
Grade \_\_\_\_\_

K-D FIXATION SACCADE TEST

Test I

2 5 8 0 7  
3 7 9 4 6  
5 3 1 6 4  
7 9 7 3 5  
1 5 4 9 2  
6 5 5 7 3  
3 1 8 6 4  
5 3 7 5 2

Time: \_\_\_\_\_ Sec.

Errors: \_\_\_\_\_/40

Comments/Observations \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Test II

3 7 5 9 0  
2 5 7 4 6  
1 4 7 6 3  
7 9 3 9 0  
4 5 2 1 7  
5 3 7 4 8  
7 4 6 5 2  
9 0 2 3 6

Time: \_\_\_\_\_ Sec.

Errors: \_\_\_\_\_/40

Comments/Observations \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Test III

5 4 1 8 0  
4 6 3 5 9  
7 5 4 2 7  
3 2 6 9 4  
1 4 5 1 3  
9 3 4 8 5  
4 1 6 3 1  
4 3 5 2 7

Time: \_\_\_\_\_ Sec.

Errors: \_\_\_\_\_/40

Comments/Observations \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Total

Time: \_\_\_\_\_ Sec.

Errors: \_\_\_\_\_/120





DEMONSTRATION CARD

2 ————— 5 ————— 8 ————— 0 ————— 7

3 ————— 7 ————— 9 ————— 4 ————— 6

5 ————— 3 ————— 1 ————— 6 ————— 4

7 ————— 9 ————— 7 ————— 3 ————— 5

1 ————— 5 ————— 4 ————— 9 ————— 2

6 ————— 5 ————— 5 ————— 7 ————— 3

3 ————— 1 ————— 8 ————— 6 ————— 4

5 ————— 3 ————— 7 ————— 5 ————— 2

TEST I

3	7	5	9	0
2	5	7	4	6
1	4	7	6	3
7	9	3	9	0
4	5	2	1	7
5	3	7	4	8
7	4	6	5	2
9	0	2	3	6

TEST II



5		4	1		8		0
4		6		3		5	9
7			5		4	2	7
3		2		6		9	4
1			4		5	1	3
9				3	4		8
5	1				6		3
4			3		5	2	

TEST III

AVERAGE ERRORS AND STANDARD DEVIATIONS

FOR EACH TEST

By Grade in School

	GRADE IN SCHOOL	P-1	P-2	P-3	KD-1	KD-2	KD-3
Avg. Err.	1	4.03	6.11	7.35	1.54	2.85	8.19
Std. Dev.	1	2.91	3.30	4.14	1.86	3.89	7.02
Avg. Err.	2	2.65	3.17	5.87	1.17	1.48	3.09
Std. Dev.	2	2.99	3.24	3.95	0.98	3.01	4.08
Avg. Err.	3	2.08	2.75	4.42	1.33	0.63	2.21
Std. Dev.	3	2.54	3.23	3.28	1.40	1.24	2.40
Avg. Err.	4	1.19	2.00	2.63	0.69	0.38	1.19
Std. Dev.	4	1.80	2.56	3.05	0.89	0.62	1.72
Avg. Err.	5	1.29	2.00	3.29	0.79	0.21	1.00
Std. Dev.	5	2.01	3.70	2.66	0.83	0.41	1.69
Avg. Err.	6	0.46	2.13	2.63	1.38	0.71	0.88
Std. Dev.	6	0.88	3.23	3.06	3.27	1.43	2.31

AVERAGE TIMES AND STANDARD DEVIATIONS

FOR EACH TEST

By Grade in School

	GRADE IN SCHOOL	P-1	P-2	P-3	P-TOTAL	KD-1	KD-2	KD-3	KD-TOTAL
Avg. Time	1	37.26	40.70	40.26	118.31	32.30	37.30	40.30	110.00
Std. Dev.	1	8.39	6.42	6.76	17.73	6.36	9.16	10.36	21.69
Avg. Time	2	36.30	40.82	42.34	118.17	27.82	31.43	38.20	97.52
Std. Dev.	2	10.31	11.04	12.30	26.28	5.80	5.74	6.48	15.29
Avg. Time	3	27.90	32.08	30.50	90.50	23.80	23.54	29.16	76.54
Std. Dev.	3	7.43	9.27	7.38	19.21	6.59	5.01	6.53	15.35
Avg. Time	4	25.75	26.69	28.38	81.13	20.31	22.50	24.56	67.50
Std. Dev.	4	7.28	6.36	6.37	17.01	5.55	6.81	6.93	17.95
Avg. Time	5	23.00	25.33	27.30	75.54	20.42	20.67	24.40	65.48
Std. Dev.	5	6.48	6.95	7.26	19.46	4.88	4.22	5.93	13.31
Avg. Time	6	20.18	24.50	25.75	70.33	20.17	20.75	22.96	63.63
Std. Dev.	6	4.38	5.15	5.85	13.69	3.10	3.73	5.34	10.52



AVERAGE ERRORS AND STANDARD DEVIATIONS

FOR EACH TEST

By Age

	AGE	P-1	P-2	P-3	KD-1	KD-2	KD-3
Avg. Err.	6	4.47	5.87	8.93	1.77	2.07	8.20
Std. Dev.	6	2.39	2.77	4.01	2.28	3.41	6.71
Avg. Err.	7	3.71	5.94	6.41	1.24	3.71	7.82
Std. Dev.	7	3.64	4.02	4.08	1.09	4.58	6.63
Avg. Err.	8	2.32	3.32	4.08	1.12	1.28	1.96
Std. Dev.	8	2.85	3.22	3.66	1.05	3.35	2.68
Avg. Err.	9	1.35	1.30	3.87	1.22	0.48	1.83
Std. Dev.	9	1.61	2.03	2.77	1.41	1.41	2.31
Avg. Err.	10	1.32	2.63	3.00	0.89	0.37	1.05
Std. Dev.	10	1.95	3.27	3.09	0.88	0.60	1.54
Avg. Err.	11	1.30	1.61	3.36	0.64	0.50	1.26
Std. Dev.	11	1.89	2.41	2.65	0.73	1.14	2.61
Avg. Err.	12	0.23	2.47	2.31	0.93	0.67	0.38
Std. Dev.	12	0.44	3.29	3.28	1.79	1.29	0.89

AVERAGE TIMES AND STANDARD DEVIATIONS

FOR EACH TEST

By Age

	AGE	P-1	P-2	P-3	P-TOTAL	KD-1	KD-2	KD-3	KD-TOTAL
Avg. Time	6	38.20	41.27	39.67	119.20	34.40	39.47	42.07	115.93
Std. Dev.	6	9.17	6.36	8.12	20.96	6.60	10.04	11.54	23.28
Avg. Time	7	38.65	43.71	41.06	121.65	30.18	33.82	39.71	103.71
Std. Dev.	7	7.17	10.17	6.93	18.81	4.72	6.19	7.09	14.46
Avg. Time	8	30.56	33.96	37.12	101.72	24.40	27.92	32.60	84.60
Std. Dev.	8	10.24	8.37	13.20	27.02	5.28	7.07	6.93	17.23
Avg. Time	9	28.13	31.61	31.83	91.57	23.52	23.57	29.43	76.78
Std. Dev.	9	8.43	10.38	8.61	22.31	7.86	6.35	8.68	20.74
Avg. Time	10	25.32	28.11	28.63	82.05	21.26	22.79	25.00	69.08
Std. Dev.	10	7.40	7.74	7.48	20.48	4.78	5.09	7.48	15.57
Avg. Time	11	20.39	24.13	25.09	70.91	20.09	19.87	24.39	64.04
Std. Dev.	11	5.33	4.86	5.32	13.44	4.50	3.45	5.67	12.27
Avg. Time	12	20.47	24.60	26.40	71.33	20.07	21.00	21.73	62.80
Std. Dev.	12	4.91	5.87	6.40	15.78	2.99	4.24	3.77	9.82



VISUAL ANALYSIS TEST

Age: 5.6-8.0

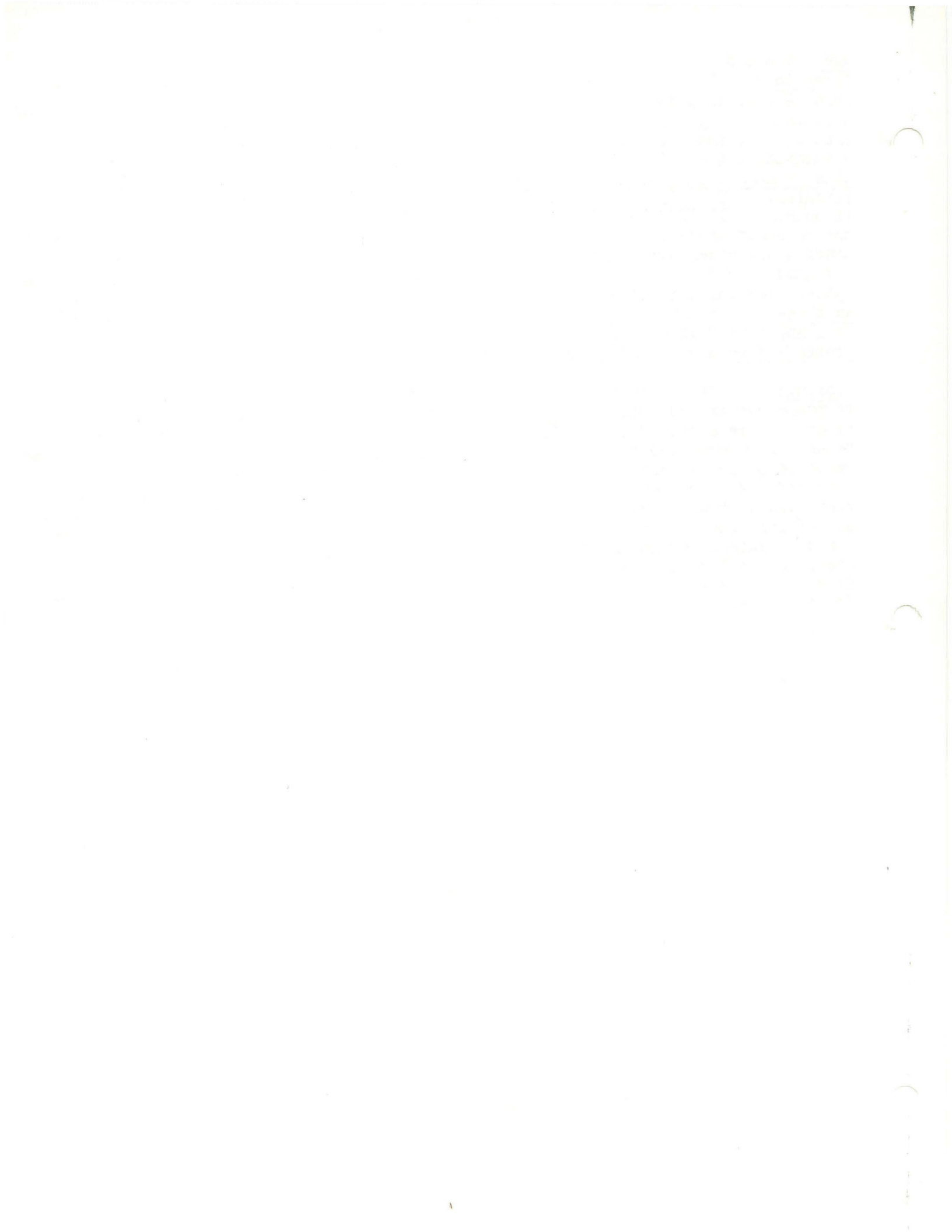
Directions: The VAT is made up of twenty-seven items. Three items are printed on each 8½ x 11 inch page of the test booklet. Each of the first eighteen items contains a stimulus: a pattern of lines drawn on a matrix of dots contained within a 2½ inch square; and a response space: a second square of the same size and containing a matching dot matrix. The child is given a pencil with eraser and told to 'make this (Examiner (E) points to response space) look just like this.' (E points to stimulus.) 'Draw lines on this (E points) so that it looks just like this.' (E points). The last nine items are somewhat different in that the dot matrix in the response space is incomplete. The response space matrices in items 19, 20 and 21 contain seventeen symmetrically placed dots rather than the full twenty-five. Dots are gradually faded from the matrix until, in item 27, none are shown in the response space. The child is told 'Draw your lines in here (E points) so they look the same as these.' (E points). 'There are some dots missing'. (For item 27, this sentence is changed to 'All of the dots are missing.') 'Don't draw the dots, imagine (or pretend) they are there' 'Just draw the lines.'

Scoring: To achieve reliability in scoring the VAT, transparencies that show the response matrix and outline the proposed paths in which the subject's lines are to be drawn were prepared for all items. The scorer superimposes the appropriate transparency over the child's response, using the dots and the drawn perimeter of the response space as reference points. A ¼" path, arbitrarily determined (1/8" on each side of a projected straight line that connects two terminal dots) to contain the child's drawn lines, appears on each transparency. A score of 2 is credited if all of the drawn lines fit within the paths. Should any of the child's drawn lines touch or extend beyond the borders of the path (on the transparency), 1 point is credited, so long as the correct terminal points of the matrix are connected. Connecting the wrong terminal points or omitting a line results in a score of "0" for that item.

End of Grade	Inadequate (1)	Adequate (3)	Strong (5)
K	Less than 16 pts.	(16-20 points) *Correct responses on items 1 through 5, 8, and 10	(at least 20 points) Correct responses on items 1 through 10; 12 and 15
1	Less than 31 pts.	(31-34 points) *Correct responses on items 1 through 16	(at least 34 points) Correct responses on items 1 through 17, 19 20 and 21
2	Less than 35 pts.	(35 - 42 points) *Correct responses on items 1 through 17, 19, 20 and 21	(42 points and above) Correct responses on items 1 through 24

\*Correct responses means at least 1 point credit on the designated patterns.





## Visual Analysis Test

The table shows the mean and median VAT scores for the kindergarten, first and second grade groups included. The range of scores within and between each group, as may be noted, is fairly broad. The kindergarten's mean VAT scores range from a low of 16.2 to a high of 20.6. The class mean VAT scores in first grade are distributed from 31.0 to 33.4. Second graders showed even larger intra-grade differences. Their mean scores ranged between 34.3 to 41.2.

PIAGET RIGHT-LEFT AWARENESS TEST

Age: 5.0-11.0

Directions:

- A. Show me your right hand.  
Now show me your left hand.  
Show me your right leg.  
Now show me your left leg.
- B. (Sit opposite the child).  
Show me my right hand.  
Now show me my left.  
Show me my right leg.  
Now my left leg.
- C. (Place a coin on the table left of a pencil in relation to the child.)  
Is the pencil to the right or to the left?  
And the penny - is it to the right or to the left?  
(Have the child go around to the opposite side of the table.)  
Is the pencil to the right or to the left?  
And the penny - is it to the right or to the left?
- D. (Sit opposite the child with a coin in your right hand and a bracelet or watch on your left arm.)  
You see this penny. Have I got it in my right hand or in my left?  
And the bracelet. Is it on my right arm or my left?
- E. (Place three objects in front of the child: a pencil to the left, a key in the middle, and a coin to the right.)  
Is the pencil to the left or to the right of the key?  
Is the pencil to the left or to the right of the penny?  
Is the key to the left or to the right of the penny?  
Is the key to the left or to the right of the pencil?  
Is the penny to the left or to the right of the pencil?  
Is the penny to the left or to the right of the key?

Scoring:

Norms for the test

Age	Items Passed by 75% of Age
5-6	A
7	A,C
8-10	A,B,C,D
11	A,B,C,D,E





Age: 5.0-12.0

Materials: A-8

Directions: The AAT is an individually administered test for children from first grade, sixth month, and higher. To administer:

1. Demonstration Items

- a. Examiner: "Say cowboy." (Wait for response) "Now say it again, but don't say boy."
- b. Ex: "Say toothbrush." (Wait for response) "Now say it again, but don't say tooth."

If testee fails either item, attempt to teach him the task by repeating the items. If failure is persistent, stop testing and score zero (0) for the test. If both responses are correct, proceed with the test.

2. Ex: "Say birthday." (Wait for response) "Now say it again, but don't say day."
3. Proceed down the list.
4. The examiner always pronounces the sound(s) to be omitted--not the letter name. (e.g., "Say belt." "Now say it again, but don't say /t/," (the "t" sound)).
5. If testee has a speech articulation problem, the examiner should note this when the full test word is initially repeated and will take that into consideration when assessing the accuracy of the response in which a portion of a word is omitted.
6. If testee fails to respond to an item, it is to be repeated exactly as it was first offered. If he does not respond to this repeat, score the item as a zero (0) and proceed to the next item.
7. Discontinue testing after 4 consecutive errors.
8. Score total number of correct responses and write incorrect responses phonetically.
9. Record as correct responses over expected for grade.

# Auditory Analysis

Name \_\_\_\_\_ Date \_\_\_\_\_

School \_\_\_\_\_ Grade \_\_\_\_\_ Teacher \_\_\_\_\_

A. cow(boy)	
B. (tooth)brush	
1. birth(day)	21. (sh)rug
2. (car)pet	22. g(l)ow
3. bel(t)	23. cr(e)ate
4. (m)an	24. (st)rain
5. (b)lock	25. s(m)ell
6. to(ne)	26. Es(ki)mo
7. (s)our	27. de(s)k
8. (p)ray	28. Ger(ma)ny
9. stea(k)	29. st(r)eam
10. (l)end	30. auto(mo)BILE
11. (s)mile	31. re(pro)duce
12. plea(se)	32. s(m)ack
13. (g)ate	33. phi(l)osophy
14. (c)lip	34. s(k)in
15. ti(me)	35. lo(ca)tion
16. (sc)old	36. cont(in)ent
17. (b)reak	37. s(w)ing
18. ro(de)	38. car(pen)ter
19. (w)ill	39. c(l)utter
20. (t)rail	40. off(er)ing



Table 8

Mean Rank Order of AAT Words

Rank Order	Test Item Number	Word Type	Rank Order	Test Item Number	Word Type
1	1	I	21	20	V
2	3	III	22	27	VI
3	4	IV	23	21	V
4	18	III	24	23	VII
5 1/2	2	II	25 1/2	32	VI
5 1/2	19	IV	25 1/2	31	VII
7	10	IV	27	34	VI
8	7	IV	28	37	VI
9	13	IV	29	24	V
10	6	III	30	22	VI
11	15	III	31	29	VI
12	12	III	32	39	VI
13	9	III	33	40	VII
14	16	IV	34	26	VII
15	14	V	35	30	VII
16	11	V	36	38	VII
17	8	V	37	28	VII
18	5	V	38	35	VII
19	17	V	39	36	VII
20	25	VI	40	33	VII



Pediatric Visual Examination  
and  
Developmental Screening Procedures  
for the Private Optometric Practitioner

A. Dennis Olmstead

Table 9

Mean Percent Correct Responses to Word Types  
by Grade Level

Word Type	Grade Level						
	K	1	2	3	4	5	6
I	80.0	100.0	97.6	100.0	100.0	100.0	100.0
II	52.0	77.4	82.9	97.3	96.6	100.0	100.0
III	20.0	81.8	80.9	91.5	94.9	94.5	94.0
IV	7.0	70.2	86.9	93.7	94.8	97.6	97.0
V	6.3	44.3	42.9	60.8	63.8	71.1	74.7
VI	0.5	22.6	33.5	53.1	56.9	62.1	74.1
VII	0.2	13.7	24.6	29.5	33.4	38.3	44.9

Table 5

Auditory Analysis Test Mean Scores by Grade

Grade	N	Mean	S.D.	Median	Range
K	50	3.5	3.5	3.1	0-14
1	53	17.6	8.4	17.6	2-35
2	41	19.9	9.3	17.6	1-36
3	37	25.1	8.5	25.5	6-37
4	29	25.7	7.9	28.7	9-35
5	35	28.1	7.6	30.8	11-38
6	39	29.9	6.9	32.3	15-38

This paper is intended to outline areas of an optometric examination and areas relative to child development that an optometrist in private practice can investigate when a child or infant presents for a routine examination or with signs and/or symptoms suggesting a possible developmental or learning problem. As a primary health care practitioner, an optometrist is often in an advantageous position for early detection of a potential area. This will depend however on the practitioner modifying his routine examination and incorporating some other tests designed to probe various developmental areas. The areas to be probed will vary of course depending on the age of the infant or child, but as the child gets older more tests and uniformity regarding "screening" areas should occur.

For the infant, fewer areas will be "screened" than in a pre-school child; however a general eye examination with screening of developmental areas of gross motor, fine motor and social behavior can still be performed.

Probably the single most important area to probe in an infant optometric developmental examination is the history, just as in a general eye examination. This cannot be stressed enough. A thorough history would include information regarding (a.) General Medical History. Is there any medical problem diagnosed or being treated? A second area of the history is (b.) Prenatal and Delivery History. This would include information regarding the duration and state of pregnancy. Was the mother taking any medications? Was the pregnancy full term or premature? Was there any complications in delivery? (natural, forceps-delivery, c-section, etc.) A third area to investigate is (c.) Postnatal History. This would include birth weight, "Apgar Score" if possible and any other complications occurring. Finally, (d.) familial ocular and medical histories should be investigated regarding systemic disease, ocular health, strabismus and refractive problems.



A second area of the examination is the External Examination. This would include (a.) General Observations regarding physical size and posture, facial assymetry and eye alignment. Optometric tests in the external examination should include penlight tests such as pupil size and reflexes, monocular and binocular corneal reflexes, versions, N.P.C. (if possible), vergences with loose prism, confrontation fields and blink reflexes. A magnified look (if possible) should be taken of the adnexa especially the lids, lashes, tear duct, puncta and cornea.

Objective Refraction should also be performed in infants. It is often advantageous to look for gross corneal abnormalities with a keratoscope or placido disc before attempting retinoscopy. Of course getting the attention of the infant is often a problem in performing retinoscopy but near retinoscopy (dynamic) is often possible by looking through a mask or performing this in a completely dark room and using loose lenses. Although the infant is in their "plastic" years developmentally, large astigmatic or anisometropic errors should be noted and compared to a later examination.

Finally ophthalmoscopy should be performed making sure that the media, disc margins, disc color, C/D and cupping, Vessels, macular area, and fundus ground are in order. The results of this testing should give the examiner a good idea of the visual status of the infant at that point in their life.

Screening the developmental areas of the infant should be performed either before or after the optometric testing. This would include objective viewing of the infant in general, and questioning the parent(s) of the infant with regards to social and self-help behavior. There are developmental profiles available that list developmental behaviors that are attained by age (in months.) These profiles are usually broken down into the areas of gross, fine motor, social, self-help, language and cognitive behavior.



Self-help behavior relates to behavior such as holding a cup, chewing, eating with fingers, etc.. Cognitive behavior relates to "how smart" such as naming objects, answering simple questions etc.. These profiles list various behaviors that should be attained by certain months of age and the examiner is able to take a random sampling in each of the areas in order to get an idea of how the infant is progressing relative to the set norms of the profile. The gross motor area screens for various postural reflexes in the young infant and the disappearance of these reflexes as the infant develops. For example, the asymmetric tonic neck reflex which would occur when the infant has its neck turned to the side and ipsilateral arm and leg would extend while the contralateral arm and leg would flex should be present in the early months of the infant but disappear by the age of 5-6 months. Fine motor screening may in part investigate grasp reflexes and the use of fingers with increasing age. Social behavior relates to smiling, recognizing faces, laughing, crying at certain times, etc.

Therefore with an infant developmental profile the examiner is not only able to compare how a child is developing and progressing relative to other children of the same age but also able to obtain a detailed sequential order of developmental skills in a particular area of development. In this manner the examiner will have a record of existing skills and skills yet to be performed successfully. The profile will also provide a basis to seek other professional evaluations if indicated while simultaneously providing a basis for remedial recommendations for the parents in the meantime. A comprehensive infant developmental profile was developed at the Pennsylvania College of Optometry and is presently being used at Ferris State College of Optometry.

By providing this modified optometric and developmental screening the primary care practitioner is providing a more comprehensive exam and has a

thorough record when examining the infant or child again as they develop. This initial work up with the thorough case history usually can be accomplished within an hour. Subsequent examinations will take less time as the history for the most part will already be obtained and the infant or child will usually be less uncooperative.

More subjective optometric testing can be incorporated as the child develops and is able to identify objects for visual acuity measurements. This will be one of the major areas the examiner will want to investigate in the pre-school child. Other areas of the optometric examination that will be performed (and stressed with the pre-school child) after the case history

- and visual acuities are:
- (3) External Ocular Health and Preliminary Exams:
    - a.) external adnxa
    - b.) pupillary distance
    - c.) versions and vergences with loose prisms \*
    - d.) N.P.C.\*
    - e.) pupillary reflexes \*
    - f.) cover test\*
    - g.) foveal fixation evaluation\*(Hirschberg, Haidingers Brush, Visuoscopy)
    - h.) Stereo Test\*
  - (4) Visual Fields\*
  - (5) Color Vision \*
  - (6) Keratascopy \*
  - (7) Retinoscopy \*
  - (8) Trial Frame Refraction
  - (9) Phorometry
  - (10) Ophthalmoscopy \*

All these areas may not be evaluated in the uncooperative 3-5 year old pre-school child but if possible should be attempted. Special attention should be given to those areas with an (\*) as these areas are critical in assessing binocularity, macular integrity and overall visual efficiency that will be necessary as the child becomes ready to enter school. If the child has a



problem it should be dealt with by proper referral or treatment.

Visual acuities can often be measured with the A.O. childrens slide or Lighthouse Childrens Symbols which have pictures of a cake, horse, bird, etc. that are familiar to children. Retinoscopy and ophthalmoscopy is often easier by having the child view a cartoon (through a cassette projector) on a distance wall. Penlight tests (versions, N.P.C., cover tests, etc.) are often easier with a flashing penlight or by using puppets to maintain fixation. These optometric tests should give the examiner a good indication of how the child is functioning visually. When possible, some additional evaluations of the child's pursuits, saccades and accomodative control should be performed. This may simply be having the child fixate an accomodative target and follow it with their eyes to see how smoothly and effortlessly they can do this, as compared to the child who continually loses it or has to move their head. This ability is still developing in the pre-school child but a record of how well the child does may prove useful when testing again in the K-3 grades, especially if a reading or learning problem develops.

Screening the pre-school (3-5 years) child who presents with no complaints for developmental deficits can be done in relatively short time. For the child whom a parent feels is having problems, a more thorough screening may be desired.

A "screening" for the preschool child who presents with no complaints may probe the areas of gross motor, fine motor, visual motor integration (pencil and paper tasks), identification of body parts, ~~and~~ body parts, and word repetition. In the three and one-half year olds and below I would recommend mainly staying with the most advanced tasks of the developmental profile discussed earlier. For some of the more "mature" three year olds

some of the simpler of the following tasks may not be too difficult.

A good screening test for the gross motor area of the preschool child is the standing balance test. This is a quick test in which the child stands away from any objects he may stumble into. The child is to stand with arms folded, elbows flexed and hands tucked in and against his chest. The examinee tells the child to lift the right (or left) leg and maintain their balance. The other foot is then tried and the total seconds are added up and compared to a norm. This test can be made more difficult if the eyes are kept closed. (See S.B.O. and S.B.C. Test in back) Other tests the examiner may use to screen the gross motor area are tasks using a tennis and/or a larger ball. The preschool child by age four (average age:  $3\frac{1}{2}$ ) should be able to throw a tennis ball with direction to you. The child should also by age  $4\frac{1}{2}$  (average age: 4) be able to catch a ball in their arms in two out of three tries, and catch a larger ball that is bounced to them two out of three times (average age: 4). By the age of five they should also be able to bounce a larger ball two times in a row with one hand.

Screening the visual motor area in combination with the fine motor area occurs when the child uses a pencil and paper to copy geometric forms. For the preschool child between the ages of three to five, I would suggest using part of the visual motor integration test (V.M.I.); possibly the first eleven figures which range from a vertical and horizontal line to a square and triangle to a star shaped figure. (See V.M.I. test at back.) Successful completion and scoring of these forms is based on accuracy and number of lines. This is also a normative comparison as the child is expected to be able to complete certain forms by a certain age. Other ways to gain information regarding the child's fine motor ability is by questioning mother regarding dress and if the child can button clothing (average age: three) or attempts



to tie shoes (by age five). Another way is by having the child stack blocks (tower of 7-8 blocks by age 3); imitate bridge of three blocks by age  $3\frac{1}{2}$ ; build pyramid from six blocks after demonstration by age five. However if the child can perform them, I feel the pencil and paper tasks may provide the most useful information regarding fine motor and visual motor integration.

Identification of body parts is also a screening area in which the child is expected to be able to touch various designated body parts by a certain age. For example, the four year old should be able to touch their eyes, ears, nose, mouth and knees yet may have difficulty with shoulders, ankles, elbows and wrist although all of these should be accomplished by age five. This test was developed for the Rosner Perceptual Survey.

The word repetition is a very gross estimate of the child's language skills as the child is expected to repeat such words as animal, breakfast, spaghetti, philosophy and elephant; also part of the Rosner Perceptual Survey.

By screening these areas the practitioner obtains information for evaluating the child's development at a certain age and comparing this to expected norms. This is of course nothing more than a screening procedure and the conclusions drawn from this information should follow accordingly. If a child fails in an area more thorough testing may need to be performed. This would require a separate examination that would more thoroughly test these same areas. These are usually more specific for the five to nine year olds and usually consist of a battery of tests that are administered by developmental education people or school psychologists who are specialists in this area. The more thorough testing may also be optioned for in the preschool child with known developmental problems who needs to know where he/she stands developmentally. Again this more thorough testing usually consists of a preprogrammed battery of tests with definite procedures for administration and scoring. It is highly recommended to consult with school psychologists or officials first

regarding the child and how the testing will affect school placement as different school districts rely more on one kind of testing versus another. If the private practitioner desires to do more of this complete developmental testing in his/her practice, he/she will then be more informed about what the school system will use as criterion and he/she will also be better able to consult with officials regarding placement and methods of teaching the child may have problems with. Again, it is not the scope of this paper to make developmental specialists but outline methods to screen developmental areas that the private practitioner can incorporate with his optometric tests in evaluating an infant or child.

The last group of children I would like to address are the kindergarten to third graders or the five to eight year olds. The visual examination for these children is almost identical to the previously outlined examination with a few changes and additions. The child is usually more cooperative in fixating where you want and for a somewhat longer period of time although there are those exceptions! For the kindergarten and first graders, cartoon movies, puppets and a flashing penlight may be very helpful. From a functional basis, emphasis should be placed on these areas from the previously outlined exam: the visual acuities (monocular and binocular at distance and near), distance and near alternate cover and cover-uncover test, versions and vergences, color vision, corneal reflexes and Hirschberg, stereopsis, and static and dynamic retinoscopy. From an organic stand point, a thorough ophthalmoscopy must be performed as well as confrontation fields. Many people feel (and I agree) that a complete screening with a telebinocular is a fast and efficient way of gaining insight into the visual status of an individual so that you can concentrate your time on those areas the child may have had difficulty with. A full telebinocular may not be possible with all kindergarten and first graders although a modified form to test visual acuities and phorias is often



beneficial. For the child who presents with no complaints and especially for the child who is referred or has complaints; a careful look at pursuits, saccades and accommodative status is essential. The inability to follow a slowly moving object with only their eyes and/or the inability to perform quick and accurate saccades is often an indication of a developmental, reading or learning problem. A very good method of testing saccades is the K-D saccade test which tests the child's ability to accurately read numbers while being timed. The test takes about five minutes to administer and the child's time and number of errors is compared to a norm by age. (See K-D test) This test is usually administered to six to nine year olds. MKM testing also may provide valuable information in a child suspected of a reading problem. This test is used is used in the telebinocular and tests each eye, but under binocular conditions so that one eye can be compared to the other and any significant suppression can be assessed as to how it affects reading and near point skills. Accomodative testing with dynamic retinoscopy and facility testing (if possible) also provides information essential in evaluating a possible near point problem.

For those children who present with no complaints all of these tests ~~may~~ need not be performed, but for those children you do suspect of problems or who are referred; you should perform most of these tests in addition to the general exam outlined in order to get an idea in what area or areas the basis of the problem may lie so that proper treatment may be initiated.

In order to assess the child developmentally, the same areas of gross motor, fine motor, visual motor, and auditory skills should be screened. The standing balance test with eyes open and closed which was discussed earlier also can be used for this age group. Other tests to screen gross

motor development are: walk heel to toe (by age  $5\frac{1}{2}$ ) frontwards and backwards; performs a two handed catch of a tennis ball (8 out of 10 tries) after it bounces once (by age 6); marches to rhythm by age 7; jumps sideways with feet together across a line 12 inches wide three successive times by age 8. For screening purposes the standing balance test plus a couple of the others above (depending on age) should give the practitioner an idea of how the child is developing in the gross motor area.

For screening the fine motor and visual integration areas I would still recommend the V.M.I. test mentioned earlier stressing figures 6-19 for the 5 to 8 year olds. The Visual Analysis Test (V.A.T.) is another pencil and paper task that may be used in addition to or in place of the V.M.I. This is a more structured task which contains two boxes of dots. The child is to copy a geometric form that is present on one side on to the dots of the other side. (see test at back). Each of these tasks screens the child's ability to look at a geometric figure, analyze its component parts and then use fine motor control to redraw it. Other miscellaneous fine motor tasks that may be used in addition to one of the (V.M.I.) or the (V.A.T.) tests are: touching thumb to tip of all fingers of one hand within five seconds by age 8; wrinkling the forehead and raising eyebrows by age 8; and the Piaget right-left awareness test (see index).

Other suggested tests to screen children 5-8 years old are the visual-auditory and auditory analysis tests. With the visual-auditory test (Visual Attention Span For Letters) the child is shown a flash card with letters on it for a certain amount of time (one second per letter). The child is then to repeat the sequence of letters correctly requiring visual attention and correct verbalization without reversal errors. (p's for q's; b's for d's, etc. see index) An auditory analysis screening may be a little out of the optometrists field but provides a little more information of the total developmental child. It is a test requiring phonix in which the examiner says a word, has the child



repeat the word and then asks the child to repeat the word without a phonetic component. For example, "say cowboy. Now say it without the "cow". The child should answer "boy". (see index)

The private practitioner can get a good idea of how the child is functioning (1) visually by his optometric exam which should stress accommodative area and areas of pursuits and saccades; and get a good feeling of (2) how the child is developmentally progressing by screening those areas with the tests described previously which have been found to detect developmental problems.

In conclusion, the private practitioner must be willing to modify his general exam and incorporate some additional tests which have been previously designed to screen for developmental problems which are often found to correlate with reading or learning problems. The author has not examined a significant number of children at this time to assess the validity or efficiency of these exams and screenings but hopes to be able to do so in the future. The author would like to thank Mrs. Lowther for her time and for exposing the author to the various tests used in the developmental work-ups at Ferris State College of Optometry.

BIBLIOGRAPHY

- Buktenica, Norman A., Visual Learning. Adapt Press Inc., 1968.
- O'Dennell, Patrick A., Motor and Haptic Learning. Adapt Press Inc. 1969.
- Orem, R.C., Learning to See and Seeing to Learn. Mafax Assoc. Inc., 1971
- Pesch, Robin S., Nasey, D. Keith, Caden, Brian W., "A Survey of the Visual and Developmental-Perceptual Abilities of the Down's Syndrome Child", Journal of A.O.A., Sept. 1978.
- Strans, Ruth, Reading. Adapt Press Inc., 1968.
- Zigmond, Naomi K., Cicci, Regina, Auditory Learning. Adapt Press, 1968.
- Pennsylvania College of Optometry Infant Developmental Profile  
Perceptual Screening Manual from Rosner Perceptual Survey.
- Class Notes from Dr. Richman's Developmental Aspects of Vision Class 1978.

# Infant Exam

Name \_\_\_\_\_ Birthdate \_\_\_\_\_ Age \_\_\_\_\_ Date \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Parent (Guardian) \_\_\_\_\_ Address \_\_\_\_\_

Phone (Home) \_\_\_\_\_ Work \_\_\_\_\_

## History

Chief Complaint: \_\_\_\_\_ Birth Hx: \_\_\_\_\_

Med. Hx: \_\_\_\_\_ Prenatal + Delivery \_\_\_\_\_

Ocular Hx: \_\_\_\_\_ Post Natal (Apgar) \_\_\_\_\_

Fam. Ocular: \_\_\_\_\_ Fam. Med: \_\_\_\_\_

Other: \_\_\_\_\_

## External

Adnexa: Lids \_\_\_\_\_ Lashes \_\_\_\_\_ Conjunctiva \_\_\_\_\_ Sclera \_\_\_\_\_ Cornea \_\_\_\_\_ Iris \_\_\_\_\_

Other: \_\_\_\_\_

upils \_\_\_\_\_ P.D. \_\_\_\_\_ Corneal Diam. O.D. \_\_\_\_\_ O.S. \_\_\_\_\_  
Gonios (Pursuit) \_\_\_\_\_ Corneal Reflexes O.D. \_\_\_\_\_ O.S. \_\_\_\_\_ Hirsch \_\_\_\_\_

Confrontations:  $\epsilon$  \_\_\_\_\_ ):

Other Reflexes: \_\_\_\_\_

Other: \_\_\_\_\_

## Refraction

Retroscope: \_\_\_\_\_

Retrocopy (e) \_\_\_\_\_

O.D. \_\_\_\_\_

O.S. \_\_\_\_\_

## Ophthalmoscopy:

O.D. \_\_\_\_\_

O.S. \_\_\_\_\_

Impressions: \_\_\_\_\_

Recommendations: \_\_\_\_\_

# Infant Developmental Profile

Name \_\_\_\_\_ Birthdate \_\_\_\_\_ Age: \_\_\_\_\_ Date \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Parent (Guardian) \_\_\_\_\_ Address \_\_\_\_\_  
Home \_\_\_\_\_ Work \_\_\_\_\_

Profile used: \_\_\_\_\_

Gross Motor:

Is able to: \_\_\_\_\_

Level: \_\_\_\_\_

Fine Motor:

Is able to: \_\_\_\_\_

Level: \_\_\_\_\_

Social:

Is able to: \_\_\_\_\_

Level: \_\_\_\_\_

Self Help:

Is able to: \_\_\_\_\_

Level: \_\_\_\_\_

Language: \_\_\_\_\_

Impressions & Recommendations: \_\_\_\_\_



# CHILDRENS EXAM

Name: \_\_\_\_\_ Birthdate: \_\_\_\_\_ Age: \_\_\_\_\_ Date: \_\_\_\_\_  
 Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Parent (Guardian): \_\_\_\_\_  
 Home: \_\_\_\_\_ Work: \_\_\_\_\_

## History

Chief Complaint: \_\_\_\_\_  
 Medical Hx: \_\_\_\_\_  
 Surgical Hx: \_\_\_\_\_  
 Social Hx: \_\_\_\_\_  
 Family Hx: \_\_\_\_\_  
 Birth: \_\_\_\_\_  
 Birth Weight: \_\_\_\_\_  
 Gestation + Delivery: \_\_\_\_\_  
 Postnatal (Illness): \_\_\_\_\_  
 Feeding: \_\_\_\_\_

Visual Acuity: O.D. \_\_\_\_\_ O.S. \_\_\_\_\_ Method: \_\_\_\_\_  
 Near: O.D. \_\_\_\_\_ O.S. \_\_\_\_\_

### External + Internal Exam:

External: Lid \_\_\_\_\_ Lashes \_\_\_\_\_ Conjunctiva \_\_\_\_\_ Cornea \_\_\_\_\_ Iris \_\_\_\_\_  
 Other: \_\_\_\_\_

Visual reflexes: O.D. \_\_\_\_\_ O.S. \_\_\_\_\_ Hirschberg \_\_\_\_\_  
 A.H.C. \_\_\_\_\_ P.D. \_\_\_\_\_  
 Versions, Pursuits: \_\_\_\_\_  
 Fields: \_\_\_\_\_  
 I.C.P. O.D. \_\_\_\_\_ O.S. \_\_\_\_\_  
 Other: \_\_\_\_\_  
 Saccade Testing: Score: \_\_\_\_\_ sec. \_\_\_\_\_ errors  
 Color Vision: O.D. \_\_\_\_\_ O.S. \_\_\_\_\_

### Refraction

Refractive: O.D. \_\_\_\_\_ O.S. \_\_\_\_\_  
 Astigmatism: O.D. \_\_\_\_\_ O.S. \_\_\_\_\_  
 Axis: O.D. \_\_\_\_\_ O.S. \_\_\_\_\_  
 V.F. \_\_\_\_\_  
 V.H. \_\_\_\_\_  
 V.M. \_\_\_\_\_  
 V.N. \_\_\_\_\_

### Ophthalmoscopy

O.D. \_\_\_\_\_  
 O.S. \_\_\_\_\_

Impressions: \_\_\_\_\_  
 Recommendations: This exam form is a rough idea that could also be used & modified although to a somewhat limited extent (Saccades, Keratometry and possibly a few others may not be possible).

#1

Date:

Prescribed by:

Prescription form

Sphere	Cyl	Axis	Prism	B.C.	C.C.	Add.
Lens form:			Tint: None			
Lens type:			Multi-vision type:			
Frame:				P.D.		
Eye size:		Bridge:		Temples:		
Use:						

These could be multiply printed on a page  
to show a present Rx and any changes  
you make (or model) at a glance.

# Child Developmental Screening

Name \_\_\_\_\_ Birthdate \_\_\_\_\_ Age \_\_\_\_\_ Date: \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Parent (Guardian) \_\_\_\_\_ Address \_\_\_\_\_  
Home \_\_\_\_\_ Work \_\_\_\_\_

## Fine Motor

SED. (right) \_\_\_\_\_ sec. (left) \_\_\_\_\_ sec. Total \_\_\_\_\_ sec Level \_\_\_\_\_  
SEC. (right) \_\_\_\_\_ sec. (left) \_\_\_\_\_ sec. Total \_\_\_\_\_ sec Level \_\_\_\_\_

Notes: \_\_\_\_\_

Other: (walk heel to toe; Catch Tennis Ball, Marches to Rhythm ecc.)  
Is able to: \_\_\_\_\_

## Visual Motor:

V.M.T. score \_\_\_\_\_ Level \_\_\_\_\_ | V.P.T. score: \_\_\_\_\_ Level \_\_\_\_\_

Notes: \_\_\_\_\_ | Notes: \_\_\_\_\_

Other: (Thumbs to finger tips; Right Left Awareness etc.)

Is able to: \_\_\_\_\_

## Attention Span for Letters:

Score: \_\_\_\_\_ Level: \_\_\_\_\_ Notes: \_\_\_\_\_

## Copy Analysis:

Score: \_\_\_\_\_ Level: \_\_\_\_\_ Notes: \_\_\_\_\_

Other: \_\_\_\_\_

Progressions: \_\_\_\_\_

Recommendations: \_\_\_\_\_



(Preschool)

# Developmental Screening

Name: \_\_\_\_\_ Birthdate: \_\_\_\_\_ Age: \_\_\_\_\_ Date: \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Parent (Guardian): \_\_\_\_\_ Address: \_\_\_\_\_  
Home: \_\_\_\_\_ Work: \_\_\_\_\_

## Gross Motor:

S.B.O. (Right) \_\_\_\_\_ sec. (Left) \_\_\_\_\_ sec. Total \_\_\_\_\_ Level \_\_\_\_\_

S.B.C. (Right) \_\_\_\_\_ sec. (Left) \_\_\_\_\_ sec. Total \_\_\_\_\_ Level \_\_\_\_\_

Notes: \_\_\_\_\_

Other: (Tennis Ball: Throw, Catch; Larger Ball: Bounce. (Include Expecteds))

Is able to: \_\_\_\_\_

## Fine Motor:

V.M.I. score: \_\_\_\_\_ Level \_\_\_\_\_ V.A.T. (if used) Score: \_\_\_\_\_ Level: \_\_\_\_\_

Notes: \_\_\_\_\_

Other: (Interview w/ Mom/Dad, Stacking Blocks etc.)

Is Able To: \_\_\_\_\_

## Identification of Body Parts:

Eyes \_\_\_\_\_ Ears \_\_\_\_\_ Nose \_\_\_\_\_ Mouth \_\_\_\_\_ Knees \_\_\_\_\_ Shoulders \_\_\_\_\_

Ankles \_\_\_\_\_ Elbows \_\_\_\_\_ Wrist \_\_\_\_\_

Score \_\_\_\_\_ Level \_\_\_\_\_ Notes: \_\_\_\_\_

Repetition: (Animal; Breakfast, Spaghetti, Philosophy, Elephant)

Score \_\_\_\_\_ Level \_\_\_\_\_ Notes: \_\_\_\_\_

## Impressions:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Recommendations:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_